



Oral Soft Tissue Trauma

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Introduction

Intra- and extra-oral soft tissue injuries are commonly seen in the paediatric patient and often present first to the dental practitioner. Soft tissue wounds may be limited to superficial structures, or extend deeper to involve facial bones, sensory and motor nerves of the face, salivary glands or ducts, and dentoalveolar structures. A clear understanding of wound healing is vital to a rational approach to the practice of repairing soft tissue trauma.

The process of soft tissue wound healing

Wound healing aims to re-establish tissue function by restoring the continuity between wound edges by the process of repair or regeneration⁽¹⁾. Repair, or scar formation, is a process whereby the continuity of the disrupted or lost tissue is regained by new tissue which does not restore the original structure and function. Regeneration is said to occur when the structure and function of the disrupted or lost tissue is completely restored⁽¹⁾.

There are 3 phases in the process of soft tissue wound healing, namely inflammation, proliferation, and maturation⁽²⁾. Following tissue injury, vasoconstriction and the activation of the extrinsic and intrinsic coagulation pathways aid in haemostasis and blood clot formation. Subsequently, growth factors, chemo-attractants and vasoactive substances are released in the injured area to initiate an inflammatory response. Vasodilation after the initial vasoconstriction also supports the migration of inflammatory cells to the wound area⁽¹⁾. In the inflammatory phase, an immediate vascular response of polymorphonuclear leukocytic infiltration followed by monocytes within 24 hours results in wound inflammation. The monocytes engage in phagocytosis of cellular matrix debris and foreign bodies, whilst angiogenesis at the edges of the wound commences restoration of vascular structure^(1,2).

The proliferative phase of wound healing is characterised by fibroblast proliferation and the production of connective tissue. This phase starts at around the second day after trauma and continues for 2-3 weeks in the case of closed wounds. The proliferative phase can extend for longer periods of time in open wounds with severe tissue damage, where complete closure requires production of a large amount of connective tissue⁽¹⁾. As healing continues, the wound is filled with vascular granulation tissue containing new capillaries, fibroblasts, macrophages, and mast cells, creating an intrinsic increase in mechanical strength of the wound⁽²⁾.

The maturation phase (aka remodelling, moderation or scar phase) commences in closed wounds 2-3 weeks after closure, but does not start in open wounds until the wound has healed⁽¹⁾. This third phase is characterised by extensive remodelling of granulation tissue and its maturation into scar formation. There is a further increase in wound strength as a consequence of decreased numbers of fibroblasts and macrophages concurrent with a decrease in vascularity, and improved architectural organisation of collagen fibre bundles^(2,3).

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President's Report

Kareen Mekertichian

Well, another busy year quickly coming to an end and it seems like we all have so much to conquer before the festive cheer is ready to flow...

The Society has been very active since the last issue of Synopses and many of our members have been very busy behind the scenes in their tireless efforts and activities. On behalf of all our members, I would also like to pass on our best wishes and thoughts to our NZ colleagues and friends during the recent earthquakes which caused considerable devastation and heartache for the locals.

Colgate

I would like to formally welcome Dr Sue Cartwright on behalf of our members to her role as the new Scientific Affairs Manager with Colgate. Dr Cartwright comes to us from NZ where she has been involved for many years in dental practice and education. I am sure that Sue will have many opportunities over the coming months to participate in our Society's events and we look forward to meeting with her and providing our support and encouragement to the entire Colgate team. We certainly value our very long and happy association with Colgate, who continues to be the Principal Sponsor for all ANZSPD events.

Royal Children's Hospital – Melbourne

As you would recall from previous correspondence, the former director of the Dental Department of the Royal Children's Hospital Melbourne, Dr Nicky Kilpatrick has moved to the UK to take up a chair in further teaching and research. We are now delighted to welcome one of our hard working members and a previous President of ANZSPD, Dr Kerrod Hallett to his new role as Director. Kerrod has extensive paediatric dental experience and has been intimately involved for many years in Brisbane providing clinical treatment and dental education, as well as undertaking exciting research. We wish Kerrod every success as he takes on this new challenge and we look

forward to the ongoing development of his Department into its next chapter.

Uluru

By now, most of you would have received notification of the exciting event to be held in Uluru, 24-28 August 2011. This unique conference will be the RK Hall Lecture series, organised by the SA Division, under the chair of Dr Joe Verco. Joe and his team have been working hard to finalise details for this event, which given the location, presents considerable organisational challenges. The Colgate Keynote speaker will be Dr Joel Berg (USA) and the event is shaping up to be a fantastic opportunity to meet up with your colleagues, undertake further learning and CE – all to be enjoyed within an amazing back drop. Please mark your diaries and look out for the updates and further details from your respective Divisions and from the conference website. [www.themeetingpeople.com.au/anzspd-home]

ANZSPD website

Along with Synopses, our Society's website can provide a valuable vehicle to access information and details which can be useful to all our members. I would encourage all of you to take a moment and access this site [anzspd.org.au] which presents with great opportunities for development in the future. We are always keen for members to contribute and to suggest other ways we can improve the content and make it more contemporary. I would like to thank the ongoing efforts of Dr John Winters (WA) who has been at the helm of our website for many years and continues to provide his expertise on a completely voluntary basis. Please ensure that your personal details are made current by contacting your Divisional secretaries and also providing any news on events or updates for inclusion. Both John and Dr Tim Johnston (Synopses Editor) have a

difficult and unenviable task in sourcing content and would always welcome any input from the membership.

Bottled water

Our family received news recently that the canteen at my daughter's school will no longer be selling bottled water. This decision has been made by the school board mainly in line with environmental concerns regarding waste, litter and recycling. The school children are now encouraged to use the water bubblers more regularly, although I noted that no decision has been made in limiting the sale of sugared, flavoured or carbonated drinks – which is worrying!

This made me think of the whole concept surrounding our use of bottled water and the industry behind it and I was intrigued with many of the facts I recently uncovered. Many of you would be constantly questioned as I am by patients and families, in relation to bottled water use and its possible association with decreased fluoride exposure. I know that this potential link remains controversial and poorly researched and the concept of caries risk association is equivocal due to difficulties in identifying and evaluating the many other co-founding factors in this jigsaw puzzle.

However, the use of bottled water is an amazing and revolutionary food phenomenon of the 21st Century and apart from the "convenience" factor, we are now being bombarded by aggressive advertising and modern marketing campaigns aimed at "lifestyle", "health" and "celebrity" status beyond water's value as a food source.

I found the following statistics and facts quite amazing as well as alarming...

- During 2008 in the US, consumers spent over US\$18 billion on bottled water – more than on iPods or movie tickets

- Consumption of bottled water has grown in the US by 1000% between 1984 and 2006
- Half the price of a typical US\$1.80 bottle goes to the retailer, as much as a third goes to the distributor and for transport. The cost of the water itself, the bottle and cap accounts for approximately 18 cents
- In 1976, the average American drank 6 litres of bottled water compared with over 100 litres in 2007 – more than milk, coffee or beer but less than carbonated drinks (200 litres)
- One billion bottles are moved around per week in ships, trains and trucks in the US alone
- World-wide the bottled-water industry is dominated by Nestle, Coke, Pepsi and the French company Danone
- 24% of the bottled water Americans buy is tap water re-packaged by Coke and Pepsi for the convenience of consumers
- “Fiji Water” has now surpassed sugar cane as the number one export from Fiji
- One in six people in the world has no dependable, safe drinking water
- Over 3,000 children a day die from diseases caught from tainted water

Final thoughts

As the end of year approaches, on behalf of the ANZSPD executive I would like to wish you all a safe and happy time with your loved ones during the forthcoming festive season and New Year. Next year is shaping up to be a very exciting and busy one with many conferences, meetings and events relating to children's dental health and I encourage all of you to keep the momentum going with your continued participation and involvement. My thanks also to the hard working ANZSPD executive and committee members for their support and enthusiasm during the year. See you again in 2011... now, where's my Evian ?



Federal Secretary-Manager's Report

Alistair Devlin

The A.N.Z.S.P.D. Grant

As reported previously, 2010 has seen the establishment of the A.N.Z.S.P.D. Grant. The Federal Council had decided in 2009 to introduce a Grant which would be to the value of AU\$2,000.00 and which would be available to all full members of A.N.Z.S.P.D. Members would be invited to compete for the annual Grant, which would be made available for:

- an oral health initiative in Australia or New Zealand which may be an educational resource or a broad community initiative.
- a community research project directly related to child oral health.
- support for an oral health project in Asia, Oceania or the Pacific which might be for materials, instruments, books for a school, etc.

Applications were called for, and a number were submitted. the Federal Council then deliberated and decided that the Inaugural A.N.Z.S.P.D. Grant should be to Dr Dorothy Boyd. Dorothy will be using the money of the Grant to help defray costs of running a paediatric hypnosis course in November in New Zealand. The lecturers at this course are both from the U.S.A. – Dr Laurence Sugarman and Dr Ron Anbar.

Dr Sugarman is a developmental and behavioural paediatrician at the Easter Seals Diagnostic and Treatment Centre in Rochester, New York and Clinical Associate Professor in Paediatrics at the University of Rochester School of Medicine and Dentistry. Dr Anbar is Professor of Paediatrics and Medicine at the SUNY Upstate Medical University in Syracuse, New York. Both Dr Sugarman and Dr Anbar have been involved in paediatric hypnosis for over 20 years. They had visited Nelson, New Zealand in 2006 and delivered a well-received introductory course in hypnosis for children, and the visit proposed for November will see a re-run of the introductory course plus a follow up intermediate course. By necessity, numbers for the workshops are limited – 24 for the introductory course and 8 for the intermediate course. The courses will be available to those involved in paediatric dentistry, in addition to those from paediatric medicine, emergency medicine, psychology and psychiatry.

Dorothy will be providing a report on the Workshops for Synopses in 2011.

Applications for the 2011 A.N.Z.S.P.D. Grant will be called for in the first edition of Synopses in 2011.

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The epidermis of scar tissue differs from that of normal skin by lacking rete pegs which are normally anchored within the underlying connective tissue matrix⁽⁴⁾. In addition, scars are unable to regenerate and therefore lack subepidermal appendages such as hair follicles and sweat glands⁽¹⁾.

Types of wound healing

Whilst the biological wound healing sequences are similar for all wound types, wounds can be divided into different types according to healing and wound closure methods⁽¹⁾.

Primary healing (healing by first intention)

Primary healing occurs when the edges of the wound are accurately opposed anatomically. The wound heals with a good cosmetic and functional result with minimal scarring. Minimal epithelialisation occurs within 24 hours to seal the wound from bacterial contamination however, these wounds are still liable to complications such as infection^(1, 2).

Secondary healing (healing by second intention)

Secondary healing is the natural biologic process that occurs without surgical intervention. It is usually present in large wounds associated with soft tissue loss or avulsion. Secondary healing can also occur when wound edges are not accurately opposed. The defect is filled by granulation tissue and significant scar tissue is formed despite contraction to aid closure of large open wounds. The resulting scar is less functional and can be sensitive to thermal and mechanical injury. The process of secondary healing takes longer but is resistant to infection especially once granulation tissue has developed^(1, 2).

Delayed primary closure

This is the technique of leaving a grossly contaminated wound open for a few days allowing host inflammatory and immune responses to control contamination, thus decreasing morbidity from wound infection⁽²⁾. Closure is completed before granulation tissue becomes visible, usually 1 week post-trauma. The wound then heals in a process similar to primary healing^(5, 6). Delayed primary closure

reduces the risk of healing complications and allows improvement in function and cosmetics⁽¹⁾.

Secondary closure

Secondary closure occurs when visible granulation tissue develops prior to wound closure or before wound contraction has spontaneously approximated the defect. The wound heals by a process similar to secondary healing with more pronounced scar formation than after delayed primary closure⁽¹⁾.

Wound healing in the oral cavity

In mice, observational studies have found that mice with wounds rinsed with saliva by communal licking had enhanced coagulation and accelerated wound healing⁽⁷⁻¹⁰⁾. This is thought to be due to saliva-derived growth factors such as epidermal growth factor (EGF) and transforming growth factor type beta (TGF- β)^(11,12). Within 4-24 hours after obtaining a simple wound, epithelial cells migrate from the basal cell layer to the base of the wound coagulum to form a thin epithelial cover⁽¹⁾. This process can occur earlier in wounds in the oral mucosa compared with those on skin possibly related to a moist oral environment or the above mentioned factors⁽¹³⁾. In addition, scar tissue formation is frequent in skin but rare in mucosa⁽¹⁴⁾.

Types of soft tissue injuries

Lips aid in shielding the dentition during impact and trauma via energy being absorbed by soft tissues in the area resulting in less severe tooth injuries. Teeth subjected to trauma can cause injury to the surrounding soft tissue by penetrating into the lips, cheeks or tongue; or by their dislocation causing gingival lacerations. The type of soft tissue trauma depends on the direction of the force, shape and size of the object, as well as the amount of energy present at the time of impact⁽¹⁵⁾.

Contusion

Contusions are usually produced by blunt trauma without an associated break in the skin or mucosa, resulting in oedema and haematoma formation in the subcutaneous tissues. Contusions can indicate an underlying bone

fracture when caused by fractured bone in maxillofacial injuries^(15, 16).

Abrasion

Abrasions result from rubbing and scraping of the skin or mucosa, removing the epithelial and papillary layers of dermis, and leaving behind a raw, bleeding reticular layer. Abrasions are frequently seen in the oral region around the lips, cheeks, chin or tip of nose^(15, 16).

Laceration

Lacerations in the skin or mucosa result from a tear produced by an object or by teeth penetrating into soft tissue. If deeper than the epithelium and sub-epithelium, lacerations may disrupt blood vessels, nerves, muscles and involve salivary glands⁽¹⁵⁾. Lacerations may be sharp with little if any jaggedness or contusion of the wound margins; they may have contused, ragged, or stellate margins; or may involve partial avulsion of tissues that remain pedicled to the surrounding structures⁽¹⁶⁾.

Avulsion

The actual loss of tissue is rare in facial wounds and meticulous examination usually reveals the tissue margins have been retracted or rolled under the wound margin. Avulsion of oral soft tissue may occur with bite injuries or deep abrasions^{(15),(16)}.

Management of soft tissue injuries

Medical considerations and history taking

A complete medical, dental and radiographic evaluation with proper documentation is imperative. Thorough documentation facilitates accurate diagnosis and appropriate treatment, enables the fulfilment of medico-legal obligations, and allows surveillance of healing by providing a reference for comparison during future examinations. A detailed medical history of medications taken, allergies, previous hospitalisations, and tetanus immunisation status should be recorded in order to rule out pre-existing medical conditions that may affect the overall dental treatment⁽¹⁷⁾. cursory neurologic examination of the patient should be performed to

assess for potential life threatening issues requiring urgent medical care. A history of loss of consciousness, dizziness, headache, nausea, vomiting, breathing difficulty, hypotension, bradycardia with hypertension (indicating increased intracranial pressure), disorientation, seizures and amnesia may indicate intracranial injury necessitating immediate medical attention⁽¹⁷⁾. Craniofacial fractures may present with leakage of the cerebrospinal fluid through the nose or ear requiring emergency hospitalisation. A trauma history should be documented including time and place of the incident, how it occurred, if other people were involved, what treatment has been provided since the incident, if lost fragments of teeth have been accounted for, and previous dental trauma.

If child-abuse is suspected, an accurate trauma history may distinguish non-abusive injuries from abuse⁽¹⁸⁾. Signs of abuse include tears of labial frena, injuries in various stages of healing, injuries whose clinical presentation is inconsistent with the history provided by the caregiver, and where the behaviour of the child and/or caregiver is inconsistent. Other signs include bruising of the labial sulcus in patients who are not walking, bruising of the soft tissues of the cheek or neck (accidental falls are more likely to bruise the forehead or chin), human hand marks or pinch marks on the cheeks, and ears. Unexplained injury of the palate, particularly at the junction of the hard and soft palates may be evidence of forced oral sex. When abuse or neglect is suspected in a child, the case must be reported to child protective services or law enforcement agencies for investigation⁽¹⁹⁾.

Emergency trauma management

Assessment of patient behaviour will determine if a general anaesthetic is required to provide adequate treatment. A systematic approach to examination and treatment can be summarised by the golden rule: *'Examine from the outside towards inside- treat from inside towards outside'*⁽¹⁵⁾. A thorough extraoral examination precedes the intraoral examination whilst treatment of intraoral teeth and bone fractures should be conducted before suturing

soft tissue injuries. The latter approach allows improved approximation of soft tissues margins during suturing and avoids rupturing of sutures which can occur if intraoral manipulation takes place after suturing⁽¹⁵⁾.

Examination of wounds and facial asymmetry, as well as palpation of the facial skeleton should be conducted to assess for the extent of the injury, presence of contusion, fractures or debris⁽¹⁷⁾. Where soft tissue injuries occur concomitantly with tooth fractures, the area in question should be examined for the presence of embedded tooth fragments clinically and with appropriate soft tissue radiographs⁽²⁰⁾. If a soft tissue wound is present, it should be debrided under local anaesthesia and carefully assessed with adequate haemostasis. Bleeding can be arrested with the aid of pressure applied with sterile gauze, or sutures⁽¹⁷⁾. Cleansing intraoral and extraoral blood and debris with saline and gauze or soft toothbrushes is recommended prior to inspection of the injuries in order to allow healing, prevent infection and tattooing from foreign bodies in the tissues^(21,22). Excavators or scalpel blades held perpendicular to the wound can be used to scrape away foreign bodies followed by saline irrigation⁽²²⁾. The above mentioned procedures are sufficient for the treatment of intra and extraoral abrasions and are the first steps taken prior to further management of contusions, lacerations and avulsion of soft tissues.

Management of contusions

Contusions are usually self-resolving and do not require treatment unless the haematoma is infected. Contusions may indicate a possible underlying fracture, and appropriate radiographic examination is indicated⁽¹⁵⁾. For example, if bruising of the chin or jaw is noted, palpation and radiographic examination of the condyles and mandible may be warranted to rule out fractures. Contusions of the floor of the mouth or tongue need vigilant assessment to ensure there is no ongoing bleeding which may compromise the airway⁽¹⁵⁾.

Management of lacerations

As mentioned previously, treatment

of teeth and intraoral bone fractures should be conducted prior to suturing soft tissue injuries. Repositioning of gingival and vestibular lacerations requires careful approximation of the tissues ensuring the tissue margins are not retracted or rolled under the wound margin, the wound is adequately cleansed and any exposed bone is covered. Where there has been loss of gingival tissue, a flap can be raised by a periosteal incision to cover any denuded bone. Placement of a minimum number of 3-0 or 4-0 absorbable sutures prevent tissue displacement. The patient should be instructed to commence an oral hygiene regimen using 0.1% chlorhexidine rinse for at least 4-5 days⁽¹⁵⁾.

Treatment of lip lacerations depends on the depth of penetration. Any foreign bodies are removed with thorough wound debridement and irrigation. If the laceration involves the vermilion border, special attention should be paid to approximate the border carefully before closing the remainder of the lip in order to avoid future aesthetic complications⁽¹⁵⁾. A mismatch of even 1mm may be easily noticeable at the vermilion border⁽¹⁶⁾. Mucosal lip lacerations should be sutured with 4-0 absorbable sutures and cutaneous wounds should be closed with a fine monofilament, such as 6.0 polypropylene or 6.0 nylon-monofilament⁽²²⁾. Through-and-through lip lacerations, lacerations where there is a possibility of damage to the orbicularis oris muscle, and those extending beyond the vermilion border of the lip are best managed by a maxillofacial or plastic surgeon.

In the case of tongue lacerations, wound entrances should be sutured with 3-0 or 4-0 absorbable sutures. When a wound is visible on the dorsal surface of the tongue, the ventral surface should also be carefully examined for involvement. In deep lacerations, a minimal number of buried sutures help to close deep layers with the knot positioned as remote from the wound margin as possible⁽²²⁾. Careful monitoring of deep wounds is advised to ensure there is no continued post-operative deep bleeding in the tongue or floor of the mouth leading to life threatening occlusion of the airways⁽¹⁵⁾.

in the tongue or floor of the mouth leading to life threatening occlusion of the airways⁽¹⁵⁾.

More extensive soft tissue injuries, such as tissue loss or lacerations involving important structures such as branches of the facial nerve or the parotid duct, should be referred promptly to a maxillofacial surgeon⁽²²⁾.

Types of sutures

Wounds do not begin to gain strength until 4-6 days after an injury, and are dependent upon sutures and epidermal cellular adhesion to maintain closure⁽¹⁶⁾. However, approximation of tissue margins with sutures does not always increase the speed of tissue healing⁽¹⁵⁾. This may be due to the ischaemia of the wound margins associated with suturing, or the suture may act as a wick and attract bacterial growth. Thus, placement of a minimal number of sutures that adequately approximate wound margins is recommended⁽¹⁵⁾. Selection of the type of suture required depends upon the condition of the wound, the tissue to be repaired, the strength and knot-holding characteristics of the suture material, and the reaction of the tissue to the suture material. Sutures can be classified as absorbable or non-absorbable, coated or uncoated, natural or synthetic, and multifilament (braided) or monofilament⁽¹⁶⁾.

In a systematic review of randomised controlled trials (RCTs) comparing the cosmetic outcomes and complications of traumatic lacerations and surgical incisions closed with absorbable sutures versus non-absorbable sutures the authors concluded their analysis was not able to demonstrate the superiority of one over the other although there was a lack of methodologically sound RCTs comparing the 2 types of sutures⁽²³⁾. The authors added that absorbable sutures offer the advantage of not requiring removal thus saving time, patient anxiety and health care dollars.

Absorbable sutures

Catgut sutures (plain or chromic) are monofilaments made by twisting together strands of purified collagen taken from bovine intestines. Plain gut

sutures maintain their tensile strength for only 7-10 days and are completely absorbed within 70 days. Catgut coated with chromium salt solution (chromic catgut) has the advantages of a slower rate of absorption with tensile strength retained for 10-14 days, reduced tissue reaction and increased tensile strength. Catgut sutures have the greatest tissue reactivity compared with all other absorbable sutures discussed below⁽¹⁶⁾. Due to the risk of prion transmitted spongiform encephalopathies, catgut sutures are no longer used for human surgery in the EU. According to the Australian Regulatory Guidelines for medical devices, catgut sutures are classified as Class III medical devices because they contain substances of animal origin and can only be sourced from countries that have not reported indigenous cases of Bovine Spongiform Encephalopathy (BSE)⁽²⁴⁾.

Glycolic acid homopolymer is a synthetic suture with greater knot-pull and tensile strength than catgut. It has reduced tissue reaction as compared with catgut but more so than VicrylTM (Ethicon, Inc., Somerville, N.J.) and its placement is not recommended at infected or percutaneous sites⁽²⁵⁾. It is more effective in deeper tissue layers (16). Glycolic acid homopolymer is commonly known by its commercial names DexonTM (Davis & Geck, Danby, Conn.) and PolysorbTM (Covidien, UK). PolysorbTM retains nearly 80% of its tensile strength at 14 days and absorption is complete by 70 days⁽²⁶⁾.

Polyglactin 910, aka VicrylTM, is a synthetic, braided suture composed of calcium stearate, lactide and glycolide acids. Multifilaments braided together allow increased flexibility and tensile strength⁽¹⁶⁾. However, multifilament sutures have a higher incidence of reactions when used in the oral cavity possibly due to permeation of bacteria within the multifilaments^(27,28). VicrylTM retains 65% of its strength at 14 days and is completely degraded within 70 days. This type of suture can be placed in infected tissue and has minimal tissue reactivity subcutaneously or in deeper layers. Percutaneous placement may be associated with delayed absorption and increased inflammation⁽¹⁶⁾.

Irradiated Polyglactin 910 is absorbed over 12-14 days with complete degradation by day 35. This type of suture is ideal for short term wound support for superficial closure and is commonly known by its commercial name Vicryl rapideTM (Ethicon). Vicryl rapideTM creates a minimal degree of inflammation and is ideal for oral mucosa but not recommended for use on facial skin⁽²⁹⁾.

Vicryl PlusTM (Ethicon) is VicrylTM coated with triclosan and is designed to reduce colonisation of surgical site bacteria. Triclosan has been shown to be effective against *Staphylococcus aureus*, *Staphylococcus epidermidis*, and methicillin-resistant strains of *Staphylococcus*⁽¹⁶⁾.

Polydioxanone (PDS II) is a synthetic monofilament suture which retains 70% of its tensile strength at 14 days and is completely absorbed after about 6 months. PDS II can extrude through the wound over time and is therefore recommended for deep tissue layers, or in a 6-0 size for the epidermal layer of the face⁽¹⁶⁾.

Poliglecaprone 25, aka MonocrylTM (Ethicon), is a synthetic monofilament suture that is a copolymer of glycolide and ϵ -caprolactone. Tensile strength is high initially at 50-60% at 7 days, and is lost at 21 days with complete absorption by 119 days. Poliglecaprone 25 sutures are used for subcuticular closure and soft tissue approximations⁽²⁶⁾.

Nonabsorbable sutures

Nylon is a synthetic, nonabsorbable suture with excellent knot security, tensile strength and is the least reactive of the nonabsorbable sutures. Monofilament nylon is less irritating to tissue than braided nylon. Nylon has memory and requires a four-throw knot to secure it closely to the healing tissue⁽¹⁶⁾.

Silk is a braided, siliconised thread spun of silkworm larval cocoons. It provides good knot security but has little advantage over modern synthetic materials with reduced strength and inability to be placed in infected tissue. Silk sutures remain soft and pliable, and do not easily cut through tissue and are therefore indicated for perioral and intraoral areas⁽¹⁶⁾.

Polypropylene, aka Prolene™ (Ethicon), is a synthetic, monofilament suture that can maintain its strength for at least 2 years⁽³⁰⁾. Its use is indicated in infected and contaminated wounds when minimal suture reaction is necessary.

Polybutester, aka Novofil™ (Davis and Geck), is a monofilament, modified polyester suture which has the ability to stretch with increasing wound oedema. This unique feature can be utilised in wounds with lacerations secondary to blunt trauma with associated tissue oedema where the suture can resume its original shape once the oedema has subsided⁽³¹⁾. Other advantages of Novofil™ include its high tensile strength for extended periods of time and its minimal tissue reactivity⁽¹⁶⁾.

Less commonly used suture types in dentistry include polyester sutures, surgical cotton and stainless steel.

Surgical tape and tissue adhesives

Surgical tape may be used for skin closure alone or in addition to sutures to relieve tension in shallow, small wounds^{(15),(22)}. Similarly, tissue adhesives such as cyanoacrylate or fibrin glue are less traumatic for the patient, more cost-effective, do not require future suture removal and can produce good cosmetic results when compared with sutures⁽³²⁻³⁵⁾. A major disadvantage of tissue adhesives is that they cannot be used on all wounds and a significant proportion of lacerations still require suturing because of their location, size, depth, or width⁽²³⁾. Additionally, their use in the perioral region is not yet sufficiently evidence based⁽¹⁵⁾.

Surgical needles

All surgical needles are allocated a number to indicate the size of the needle which varies within manufacturers. The larger the number, the smaller the needle size within that series⁽¹⁶⁾. The reverse cutting needle is most frequently used for suturing facial wounds which has a cutting edge along the convex surface. This allows for minimal tissue damage by not cutting all tissues in its path. Conventional cutting needles have the cutting edge along the concave surface (Table 1:

Appendix). The three-eighths circle needles are most commonly used for suturing large, superficial wounds. Half-circular needles are more suitable for suturing small or deep wounds and body orifices in smaller spaces but require more wrist movement to allow needle passage. The more extreme five-eighths circle needles are selected for use in confined areas such as the oral cavity although its use is uncommon in routine dental practice⁽¹⁶⁾.

Tetanus and antibiotic prophylaxis

In the case of soft tissue injuries (especially those caused by a potentially contaminated object), passive immunisation is indicated to prevent tetanus in unimmunised patients. A booster injection in immunised patients may be required to activate the antibody-forming mechanism within the immune system⁽¹⁷⁾.

Conventionally, prophylactic antibiotics have been recommended for heavily contaminated wounds, wounds involving the full thickness of the lip, open fractures, bite wounds when wound debridement is delayed more than 24 hours, and in patients with a compromised immune system⁽²²⁾. A recent review of the literature assessing the strength of the evidence to support the use of prophylactic antibiotics for intraoral wounds treated and repaired in emergency departments concluded the role of oral antibiotics was inconclusive in the treatment of intraoral wounds⁽³⁶⁾. The authors stated that until a larger clinical trial is performed, treatment decisions must be guided by clinical and scientific rationale rather than evidence-based medicine⁽³⁶⁾.

Conclusion

It is essential that oral soft tissue trauma is followed up to ensure adequate healing of the tissues has occurred and to allow timely intervention for non-healing cases or other complications. Assessing the surrounding hard tissues is also advised during the review appointment. A sound understanding of the prognostic factors applicable to soft tissue healing as well as appropriate treatment will allow for provision of ideal aesthetics and function.

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Appendix

Type of needle point	Number of cutting edges	Cross-sectional shape	Design features	Indications	Comments
Conventional cutting	3	Triangular	For penetration through dense, irregular, and relatively thick tissues	Skin sutures	The third cutting edge is on the inner, concave curvature
Reverse cutting	3	Triangular	These needles are stronger than conventional cutting needles and have a reduced risk of cutting out tissue.	For tissue that is tough to penetrate (eg, skin, tendon sheaths, oral mucosa).	The third cutting edge is on the outer convex curvature of the needle
Side cutting (spatula)	At least 2	See diagram	These needles are flat on the top and bottom surfaces to reduce tissue injury.	Ophthalmic procedures	
Taper-point (round needle)	1	Oval	Penetrates and passes through tissues by stretching without cutting	For easily penetrated tissues (eg, subcutaneous layers, dura, peritoneum, abdominal viscera)	
Blunt-point	Point is rounded and blunt	Round	Dissects friable tissue rather than cuts it.	For suturing liver and kidneys	



President Elect Report

Eduardo Alcaino

Dear Colleagues,

I have been involved with IAPD for a number of years and this experience has been enriching in terms of further education, professional contacts, and having the ability to share knowledge with colleagues from around the world. More recently I have formed part of the Board of Directors of IAPD and I am honoured to be part of this wonderful organisation. Like all institutions there are goals and work to be done and like my predecessors, we continue to work tirelessly to achieve further education around the world, services to disadvantaged children and growth in terms of member numbers of our organization.

IAPD hosts an international congress biannually and as you note in this newsletter, the next congress will be held in Athens, Greece from 15-18th of June 2011. Australasia, through its ANZSPD and AAPD bodies is heavily involved in the scientific program as well as the pre-congress courses.

Several ANZSPD members will attend this meeting and combine this event with a visit to the Greek Islands. I encourage you to attend the Athens congress where you will have the opportunity to interact with many of your overseas colleagues. There are a number of awards and bursaries offered by IAPD as well as a number of social functions. Further information and details of these events are found in the official congress website at: <http://www.iapd2011.org> or you may email me directly on ealcaino@sydpd.com.au

Hope to see many of you there.



Message from the Editor

Timothy Johnston

“Seasons Greetings to all”

My first issue of Synopses as Editor and it is true what the ghosts of past Editors say, getting content is harder than getting blood from a stone. Congratulations and thank you to Drs Harleen Kumar and Joe Verco for putting the effort in for this issue.

Synopses is the plural of the word synopsis whose meanings include a brief or condensed statement giving a general view of some subject and a compendium of heads or short paragraphs giving a view of the whole. I think this is the essence of our Journal, to give everyone an update of the Society's activities and update our education. It is here that I would like to encourage members to contribute, to forward information that will be of interest to the Member professionally and globally. I know we are all a little hesitant as we expect the standards should be at a peer review level but I do not think this is essential, what we want is a synopsis. With this in mind, I would like to invite members to contribute to a new section I would like to introduce in the next issue titled Brief Case. I am looking for short (brief) case reports that are of interest, aiming to publish a couple each issue. Again, to ensure it is not an onerous task, peer review level is not required. Please submit your papers as a document file with accompanying photos/radiographs in high resolution jpeg format. Possibly a photo of the author as well if you would like.

So look out for the “Brief Case”, look out for Santa and all have a very safe and happy holiday period.



ANZ



**Wednesday 24 -
Voyages Sail
Uluru, Northern**

R.K. Hall Visiting Lecturer: Prof. Joel B

We are proud to announce that in 2011, the R.K. Hall Visiting Lecturer will NOT be moving from State to State and New Zealand, but rather will be able to deliver a more comprehensive series of lectures at the R.K. Hall site in the Centre of Australia, in Uluru.

Remember that there is a 'tyranny of distance' necessitating arrival in Uluru on Wednesday 24th August 2011 and departure mid-morning of Sunday 28th August 2011. You will be part of the captive audience.

We look forward to your participation in this exciting meeting and to register your interest in receiving further updates, please contact the meeting secretariat.

Proudly sponsored by

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**Voyages Sails in the Desert, Uluru, Northern Territory
Map of Uluru - www.ayersrockresort.com.au/location**

SPD

Sunday 28 August 2011 Sails in the Desert, Northern Territory, Australia

Dr P. Joe W. Verco

Convenor, ANZSPD R.K. Hall Travelling Lecture Series
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Lara Birchby, Meeting Manager

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on

Innovative Pediatric Oral Health Centre Opens

American Dental Education Association

September 1 was an exciting day for the University of Washington (UW) and Seattle Children's hospital, when their joint efforts to address childhood dental disease helped launch The Center for Pediatric Dentistry.

A \$21 million facility built entirely with private funds, the center will focus on early intervention, with dental visits to begin by age one. It will be a center of not only clinical care, but also research, education, and public policy, seeking to make inroads into what has been called a "silent epidemic."

An estimated 28% of all U.S. toddlers and preschoolers are affected by early childhood caries, which is highly preventable through early dental visits, healthy nutrition, and home care. More than 51 million school hours are lost each year to dental-related issues and disease, which is also associated with serious illnesses including heart disease and stroke.

"We are seeing an alarming increase in early childhood caries," said Dr. Joel H. Berg, Chair of the Department of Pediatric Dentistry at UW and Director of the new program. "It is truly a national health crisis. This trend, coupled with a shortage of pediatric dentists, educational facilities, and integrated policy approaches, was the primary reason and driving force behind the formation of The Center for Pediatric Dentistry." Dr. Berg is also Vice President of the American Academy of Pediatric Dentistry.

The new program will also seek to identify children at highest risk of dental disease, and will also offer care to children with special needs. A goal of 30,000 patient visits has been set for the first year, with 40,000 per year thereafter. Ten pediatric dentists, two pediatric oral surgeons, three craniofacial orthodontists, and a social worker will staff the facility. Students and residents will be educated on site to detect caries lesions, conduct risk assessments, and identify and remove plaque. Research in risk assessment technology, genetic factors, and salivary composition will also be addressed.

"The Center for Pediatric Dentistry will serve as a leader in early childhood oral health, working to improve the health of children throughout the region, the country and the world," said Dr. Thomas N. Hansen, CEO of Seattle Children's Hospital. "We are pleased to partner with the University of Washington on this important initiative."

The Washington Dental Service (WDS) and its foundation provided a \$5 million gift, which helped to launch the center's construction. Seattle Children's Hospital contributed \$1.5 million and other resources, and the UW issued revenue bonds to finance the remaining renovation costs of the World War II-era building at Seattle's Magnuson State Park. In recognition of the gift, the 21,000-square-foot facility has been named the Washington Dental Service Building for Early Childhood Oral Health. "We need a giant step forward in disease reduction, and we believe that this center will be the catalyst," said Ms. Laura Smith, President and CEO of the WDS Foundation.



"We are seeing an alarming increase in early childhood caries," said Dr. Joel H. Berg, Chair of the Department of Pediatric Dentistry at UW and Director of the new program



UNIVERSITY OF OTAGO

POSTGRADUATE PROGRAMME IN PAEDIATRIC DENTISTRY

**THE DOCTOR OF CLINICAL DENTISTRY
PROGRAMME RUNS OVER THREE YEARS,
INVOLVING CLINICAL EXPERIENCE
AND RESEARCH LEADING
TO SPECIALISATION IN
PAEDIATRIC DENTISTRY.**

RESEARCH

Current staff and students have formed a research cluster with several other staff in the Faculty to investigate molar incisor hypomineralisation including the ultra structure of the enamel defects, the modification of the enamel to improve bonding and pinpointing the mechanism and timing for the defective enamel. Other projects include the long-term implications of early childhood caries on oral and general health in early adolescence, metagenomic studies of oral bacteria in children and oral health related quality of life in children with dental disease.

CLINICAL EXPERIENCE

Although the School draws on a small population, specialist cases are referred from two provinces and students gain experience managing a wide range of clinical problems with excellent supervision from paediatric dentists, orthodontists, oral and maxillofacial surgeons, endodontists and prosthodontists in particular. Students attend weekly seminars in the Department of Paediatrics and have access to a wide range of seminars and lectures throughout the University. Students are encouraged to spend time in another clinical institution during the programme if they wish.

Teaching Fellowships are available.

One place is still available for 2011.

If you are interested please email
Associate Professor Bernadette Drummond:
bernadette.drummond@otago.ac.nz

For 2012, applications close on 31 May.
Information and applications are available on the
University of Otago Web Site: www.otago.ac.nz
and www.otago.ac.nz/dentistry/study/postgraduate

POSTGRADUATE STUDIES



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ANZSPD Branch News

New Zealand

The NZ Branch has been in hibernation for most of the winter getting ready for our annual Study day on November 27 at the Mac Brewery in Wellington. We did come out though for a wonderful series of lectures at the Biannual NZDA conference in Christchurch, by Professor Monty Duggal. Monty spoke on all topics and combined clinical tips with up to date research being done at his unit in Leeds. Many ANZSPD members were at this conference which was just weeks prior to the earthquake on September 17. The earthquake which has resulted in significant property damage has affected many dental practices in some way- especially the poor fish tanks! We hope that life is back to normal for our members in Christchurch by the time this is in print.

The study day this year has a small format change as we have Dr Poulson who heads the Dunedin Longitudinal Study (who spoke at the Biannual ANZSPD conference in Queenstown) spending the day with us and giving us an update from this long running cohort study. We will learn more about general health and social issues and hopefully he will be able to talk to us about some of the 900+ papers that have come out of this study! We will also be having our regular presentations by members so get those cases together. If you are interested in attending please contact Dr Craig Waterhouse, Honorary Secretary on craig.shona@xtra.co.nz. We would love to see any members there.

Erin Mahoney
President, NZ Branch

Victoria

Our Branch has just concluded a highly successful meeting showcasing the high calibre of Australian postgraduate students in paediatric dentistry. In support of postgraduate paediatric dentistry education in Australia and New Zealand, the local committee in 2009 proposed an evening of research or case presentations to compete for The Brownbill Paediatric Dentistry Award. This award was named after Clinical Associate Professor John W. Brownbill to honour his long membership of ANZSPD and contribution to paediatric dentistry. Dr Evelyn Yeung from the University of Adelaide brought an interesting case outlining the multi-disciplinary management of a 14 year-old boy with multiple dental anomalies and immune mediated thrombocytopenic purpura. Three local (The University of Melbourne) postgraduates were the other candidates. Dr Charmaine Hall presented a case of multifocal epithelial hyperplasia probably better known as Heck's disease. Dr Rebecca Williams described a case of melanotic neuroectodermal tumour of infancy which she had been involved with in her home state of Western Australia. Dr Justin Wong discussed the management of the oral complications of Vitamin D deficiency induced by reduced sun exposure. The judging panel comprising Emeritus Professor Louise Brearley Messer, Clinical Associate Professor John Brownbill and Dr Igor Lavrin commended all candidates on the quality of their presentations. Congratulations to the winner Dr Justin Wong, who won a single return economy airfare and paid registration to attend the International Association of Paediatric Dentistry meeting in Athens in 2011.

The next Victorian Branch meeting is based on the theme of "Management of the Pulp" and will be held on Saturday 9th October 2010. Looking forward to 2011, the committee is planning a Saturday half-day meeting and one Thursday dinner meeting, covering topics from adolescent health to the benefits of early orthodontic intervention. Additionally, a regional meeting on Saturday 22nd October 2011 will be held in Bendigo and feature experts in the field of Early Childhood Caries.

Fiona Ng
Secretary

Western Australia

Once again, the Branch held its Annual Mid-winter Meeting in the south west of the state. It was held at the end of August at the spectacular Bunker Bay Resort, which is close to Cape Naturaliste, west of Busselton and at the gateway to the Margaret River region. Proceedings commenced on the Friday afternoon with a comprehensive presentation by orthodontist, Dr Siva Vasudavan. Siva provided a review of the protocol for the treatment of cleft lip and palate children in Massachusetts. Siva had spent a year in this part of the world following completion of his specialist training. Vanessa William then challenged the diagnostic skill of those present with a case study that ended up being an odontogenic fibroma.

The traditional Mid-winter dinner followed in the evening and then the equally traditional tardy start occurred on the Saturday morning.

“What better start to a beautiful blue sky morning than breakfast on the terrace looking North over the ocean where the Southern meets the Indian. Relaxed and fortified, the meeting regrouped for a morning Pot Pourri session encompassing a range of topics from water management, a report from IADR in Spain through to interesting clinical cases and hemophilia management and fittingly concluded with a final burst from our invited speaker, Siva Vasudavan, Orthodontist, discussing some of the new technologies that are advancing the management of orthodontic diagnosis and care. Then, a long and lazy vineyard lunch stretching well into the sunny southwest afternoon – a perfect conclusion to a perfect day.”

K Dyson President WA Branch

The next meeting for the WA Branch was a half day course on the 15th October to held at A.D.A. House in West Perth. The course title being: “All You Need to Know About Oral and Dental Infections”. Course Convenor, Peter Readman, assembled an impressive panel of speakers, commencing with Endodontist, Professor Paul Abbott, who spoke on the “Management of Endodontic Infections and a Review of Antibiotic Guidelines”. Our own member, Dr John Winters spoke on “Treating Children and Adolescents with Dental Infections”; Periodontist, Dr Wendy Gill followed with “Clinical Management of Periodontal Infections”. Dr Gareth Davies, the Oral Medicine Specialist discussed “Infectious Diseases of the Oral Mucosa and a Review of Aphthous Ulceration” and the program wrapped up with Oral-Maxillofacial Surgeon, Dr Carolyn Stulner speaking on “Treatment of Odontogenic Infections of the Head and Neck”. An enjoyable drink was had at ‘Pete’s Bar’ (Readman and Gregory) to help digest all that was learnt.

Alistair Devlin

Secretary A.N.Z.S.P.D. WA Branch

Queensland

This year has been an exciting year for ANZSPD in Queensland with quarterly meetings moved to the fantastic SeaSalt at Armstrongs Restaurant. The Society’s March AGM saw a newly elected President, Assoc Prof Kim Seow alongside newly elected Secretary/Treasurer, Dr Matthew Fracaro. Our June meeting, sponsored by 3M ESPE, had Prof Hien Ngo, Chair General Dental Practice UQ and authority on all things GIC talk to the group about the latest and greatest in the world of this intriguing material. Our August meeting had Professor Monty Duggal of Leeds deliver a thought provoking discussion on endodontic management of traumatized immature permanent incisors, and was proudly sponsored by Colgate. Our Annual Clinic Day this year is scheduled for November 20 and will be held at the Indooroopilly Golf Club. Speakers include Dr Peter Wong, Professor Hien Ngo and Dr Rodney Marshall. ANZSPDQ has been somewhat invigorated this year by invitations to attend dinner lectures being extended to ADA Members through its efficient eNewsletter, as well as to Members of the Dental and Oral Health Therapists Association of Queensland. In addition to this we have managed to obtain CPD points accreditation of our lectures and Clinic Day giving even greater benefits to members.

Assoc Prof Kim Seow

President, School of Dentistry, University of Queensland

ANZSPD Branch News

South Australia

2010 has been a most successful year for the South Australian Branch of ANZSPD. Dinner meetings at reasonable cost have proved to be most successful – the last of which was attended by 26 members and guests. The topics covered this year included:

16th February

“Pitfalls of Sedation in Dentistry”,
Dr David Sainsbury.
Postgraduate Presentation,
Dr Evelyn Yeung.

11th May

“Regenerative Endodontic Therapy”, Dr Khashayar Nassery
“Revitalising Young Non-Vital Pulp”, Dr Michael Malandris
Postgraduate Presentation,
Dr Akram Qutob

3rd August

“New Developments in Local Anaesthesia”,
Prof. Grant Townsend
Postgraduate Presentation,
Dr Ruba Odeh

19th October

“A Personal Insight into Aboriginal Dental Health”, Dr John Wetherall
Postgraduate Presentation,
Dr Sofie Bui

This year has been very busy in not only attending New Zealand for AAPD and ANZSPD. Also EAPD in Harrogate was well represented by Australians – after all Capt. James Cook set sail from Whitby which is also Yorkshire UK.

The “Roger Hall Lecture Series” Committee has also engendered enthusiasm within our group. The prospect of making it a complete holiday and place of interest as well as Dentistry has not been lost on us, nor has the advent of the National Dental Council and new regulations with respect to CEU’s as a Registration requirement.

Some courses in other States have been swamped with up to 300% plus increase in attendance. The Centre of Australia is now the land of “droughts or flooding rains” – William Creek was cut off for 3 days in August 2010. The Initial Flyer and Monthly Missives will I hope keep everyone up to speed. Driving is not for the unskilled if going on some of the different “Tracks” but a special feature will be run for those on the Eastern Side of the Great Divide with 4WD!

Postgraduates in SA and what they are doing:

Abstracts

Dr Akram F. Qutub is a candidate in the Doctorate of Clinical Dentistry (Paediatrics) program through The University of Adelaide. He graduated with a Bachelor of Dental Surgery from the Faculty of Dentistry, King Abdulaziz University, Saudi Arabia, in 2001. He completed his PhD and a specialist training in Dental Public Health from the University of Toronto, Canada in 2009. In 2009 he also became a fellow of the Royal College of Dentists of Canada (FRCD(C)) in Dental Public Health. He has several publications and now his Doctorate research topic is on assessment and validation of a diagnostic scale, oral care protocol, and prevention of oral mucositis in a paediatric population receiving cancer therapy. The research is a prospective study aiming to: record the incidence of oral mucositis and validate the ChIMES diagnostic scale in children receiving cancer therapy, assess a new standardized oral care protocol and evaluate its preventive effect on oral health, explore the relationship between patients’ genotypes and the risk of developing oral mucositis. This study will improve the recording of oral mucositis, help prevent oral diseases and advance research and clinical management of children with cancer.

Dr Evelyn Yeung is a candidate in the Doctorate of Clinical Dentistry (Paediatrics) program through The University of Adelaide. She graduated with a Bachelor of Dental Surgery from The University of Adelaide in 2004. In 2006 she successfully completed the Primary examination through The Royal Australasian College of Dental Surgeons. Prior to her current position, she had worked for 3 years in both private and public practice, and is a current member of the Australian and New Zealand Society of Paediatric Dentists, Australasian Society of Paediatric Dentists, and Australian Dental Association Recent Graduates Committee. Researcher: Dr E. Yeung – a candidate in the Doctorate of Clinical Dentistry (Paediatrics) through the University of Adelaide.

TOPIC: Incidence and prevalence of orofacial granulomatosis in a paediatric population with Crohn’s Disease.

This research is aimed at determining if orofacial granulomatosis (OFG) is a precursor to, or an oral manifestation of Crohn’s Disease. It may also establish if the oral manifestations are a separate oral pathological condition. The clinical presentation and symptoms from OFG and Crohn’s Disease in children has a significant impact on their quality of life and future growth and development. Not only is the individual’s daily life and health affected, but there are also psycho-social, financial, family factors to consider, as are the impact and burden on public resources. The clinical signs and symptoms of OFG have direct consequences on the patient, including discomfort during masticatory function and aesthetic concerns leading to psycho-social problems. Whilst OFG itself is not life threatening, early detection is in order to manage the oral discomfort

effectively and avoid permanent un-aesthetic permanent facial swelling and markings.

Data from this research would enable a 'visual guide' to be devised for clinical use to diagnose and assess the severity of OFG. Through identification of predisposing factors, characteristic phenotypes of Crohn's Disease and OFG in a paediatric population would aid development of a clinical classification system. Thus findings from this research could aid in the diagnosis and early management of Crohn's Disease. This could potentially correlate orofacial findings with the activity or course progression of Crohn's Disease through orofacial pathological changes. Evidence-based protocols can be established, with dental examinations incorporated into the investigations for all patients with suspected Crohn's Disease.

Dr Ruba Mohammad Odeh graduated with a Doctor in Dental Surgery from Faculty of Dentistry, Ajman University of Science & Technology (AUST) Ajman, UAE, in 2003. Since her graduation she worked as part time clinical tutor in both University of Sharjah and the University of Adelaide, in addition, she participated in many oral health projects as a volunteer dentist and research assistant. She completed her Bachelor of Science in Dentistry (Honours) degree from the University of Adelaide in Twin Study in 2009. She commenced her specialist training in Paediatric Dentistry in January 2010. Her research project is on Infraocclusion in Twins and singletons.

Research abstract: One example of a disturbance in the eruption process is the so-called 'infraoccluded' tooth which refers to the failure of a tooth to completely erupt to the normal level of occlusion. Objectives: To determine the frequency of occurrence of infraocclusion in

samples of both singletons and twins. Also, to determine whether there are associations between infraocclusion and several variables including sex, age, arch type, tooth type and sides in the twins and singletons. Moreover, it is planned to clarify the roles of genetic, epigenetic and environmental factors on infraocclusion by applying the traditional MZ/DZ twin model, as well as the MZ co-twin model to data collected from the twin sample. It is also planned to study some selected individuals with genetic disorders of the oro-facial region to assess their expression of the condition. Methods: One study sample comprises OPGs of healthy singleton children, Finnish boys and girls (all of European ancestry), aged between 9-10 years. Records available are 1454 orthopantomographs (OPGs). Another sample will comprise study models of MZ and DZ twins who are part of a larger study that has been carried out in the School of Dentistry at the University of Adelaide over the past 25 years. A third sample will involve patients from the Women's & Children's Hospital, Dental Department, Adelaide, South Australia. Records of patients with various conditions, e.g. Down's syndrome and cleidocranial dysplasia, will be examined. Results: Preliminary analyses have revealed that, out of 327 OPGs of males, 29 (8.8%) have at least one infraoccluded tooth and, of the 276 OPGs of females, 31(11%) have at least one infraoccluded tooth. Conclusion: If a strong genetic association is revealed in this study of infraocclusion, then further investigations of the genes involved will be crucial to future possible prevention of the condition.

Supported by the NHMRC of Australia.

PJW Verco
President ANZSPD (SA Branch)

The Paediatric Dentistry Fund

The way we look after our teeth in childhood.

ANZSPD Victorian Branch

Excellent dental health in childhood provides the foundation for optimal oral health for many years to come. The dental visits for a young child can be awesome and fun, building a lifetime of pleasantly memorable experiences and quality oral care.

Paediatric Dentistry is a specialist area which focuses on the dental care of children and teenagers, many of whom may have behavioural issues or chronic illness. It is a rewarding and complex field, where technical skills must be matched with excellent communication and an understanding of the psychology of children and their parents.

Experts in children's dental health receive additional training and experience which gives them the knowledge to deal with children. Training includes learning specific techniques and treatments including education in oral health care, cavity prevention, sedation, trauma management, growth and oral development. Most importantly, they learn to care for their patient so the child's visit may be a positive experience.

Children generally cope well with patience and individualised care. Working with children requires a knowledge of the different stages in childhood development. Paediatric Dentists understand children and are able to communicate simply and effectively with their child patients and parents so treatment can be successful.

A commitment to paediatric dentistry

Clinical Associate Professor John Brownbill has had an enduring relationship with The University of Melbourne for over 50 years. He is a pioneer in the field of Paediatric Dentistry and is a respected teacher at the Melbourne Dental School. During his career, John has been a strong advocate for prevention in dental health and believes that most of the problems children face with their teeth are a result of poor diet or eating food high in sugars.

The Paediatric Dentistry Fund was established in 2009 by his sons James, Andrew and Robert in recognition of their father's long-standing association with the Melbourne Dental School. The Trust also recognizes the contribution the Brownbill family has made to Dentistry in Victoria. (John is the last of a family of dentists who practised in Victoria throughout the 20th Century.) His father Joseph William Brownbill practised in Mildura and his uncle George Metcalfe Brownbill set up a practice in Maryborough. The Trust also acknowledges John's mother Ruby Olive Alice Brownbill and the support of John's wife Helen Gae Sestero.

It is family's hope that the Trust will enable many more students at the Melbourne Dental School will further their study in this rewarding field of dentistry.

The future of paediatric dental care

Today there is a greater awareness of the importance of early interventions in this critical area of primary health care. New techniques and treatments have been developed to cater to the management of young patients.

Special treatments include a minimal invasion approach and the use of modern materials on children rather than general anaesthesia.

There is an emphasis on oral education and prevention. Decay and gum disease are two big preventable dental diseases and it is important for children to learn about this from an early age.

Encouraging young people to look after their teeth and to be aware that what they are eating will affect their teeth is one of the Paediatric Dentist's primary roles.

For example gum disease starts as gingivitis if the teeth are not cleaned; so, all teeth should be cleaned regularly and children should be carefully guided through this important part of their health care.

How you can support this important area of Paediatric health

By supporting The University of Melbourne Paediatric Dentistry Fund you can assist bright young dental students continue to pursue their studies in this exciting and dynamic area.

The fund is to provide support for research and teaching in Paediatric Dentistry at the Melbourne Dental School to ensure that we have skilled and compassionate Paediatric Dentists who can look after our young people.

The Inaugural Brownbill Paediatric Dentistry Award

John W Brownbill

Over the last two years, the Victorian Branch of ANZSPD has held two Saturday meetings per year which have been very successful and well attended. Many members missed the format and camaraderie of the traditional Thursday evening dinner meetings; so, the committee decided to conduct an Australasia wide competition amongst graduate students with a valuable prize of a trip to Greece for next year's IAPD meeting. The terms and conditions have been well publicized previously and the dinner meeting arranged for 26 August 2010.

I was honoured by the committee by having the prize named after me as well as a life membership. Little did I know that I would be "roasted" on the night with too many kind words and anecdotes as well! There is no free lunch and I was one of the judges together with Dr Igor Lavrin and Professor Emeritus Louise Brearley-Messer. The committee had spent a great deal of time in preparation for this new event, we must single out Dr Fiona Ng for the fine detail of the organization that led to everything going off without a hitch.

The ground rules were strict and times were carefully monitored with ten minutes for presentation and five minutes of questioning. The judges had the benefit of reading the abstracts in advance, so could prepare their questions which were set with an expectation of high standards of knowledge by the candidates. The judges asked questions first, then the audience had an opportunity. The president, Dr Margarita Silva was strict too. After two comments on the first case, comments from the floor were banned with only questions allowed.

A visitor from South Australia, Dr Evelyn Yeung, spoke about the multi-disciplinary management of a case of a 14 year-old boy with multiple dental anomalies and immune mediated thrombocytopenic purpura. Three local Melbourne postgrads were the other contestants. Dr Charmaine Hall presented a case of multifocal epithelial hyperplasia probably better known as Heck's disease by we oldies. Dr Rebecca Williams showed a case of melanotic neuroectodermal tumour of infancy which she had been involved with in her home state of Western Australia. Dr Justin Wong showed the management of the oral complications of a vitamin D deficiency induced by reduced sun exposure.

The judging was on the abstract, case description and problem, literature review, treatment planning and interpretation, quality of management by the presenter, conclusions, clarity of presentation, quality of audio-visual, answers to questions and relevance to Paediatric Dentistry. The judges commended all participants on the quality of their presentations. The greatest criticism from the judges



Top: Drs Margarita Silva, Justin Wong and John Brownbill

Bottom: Professor Louise Brearley Messer, Dr Igor Lavrin and Dr John Brownbill

was that much of the work had been by consultants rather than the postgrads themselves. The judges came to a unanimous decision that the winner was Dr Justin Wong.

That was not the end of the evening as Dr Narisha Chawla was announced as the first recipient of the Robert Feigal Travelling Award presented by the Paediatric Dentistry Fund of the University of Melbourne. In Minnesota and Texas, Narisha will present her award winning essay on developments in fissure sealants since Feigal's seminal article.

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The Inaugural Brownbill Prize

Thursday 26th August 2010

Background

In support of postgraduate paediatric dentistry education in Australia and New Zealand, the committee of the ANZSPD (Victorian Branch) in 2009 proposed an evening of research or case presentations to compete for the Brownbill Prize. This award was named after Associate Clinical Professor John W. Brownbill to honour his long membership of ANZSPD and his contribution to the paediatric dentistry profession. Any postgraduate student currently enrolled in a paediatric dentistry Masters or Doctorate program in Australia or New Zealand or any student who completed one of these programs in 2009 is invited to compete for this award.

The Award

The winner will receive a single return economy airfare and paid registration to attend the International Association of Paediatric Dentistry meeting in Athens in 2011.

Conditions

1. The judging panel reserves the right to withhold the award for any reason.
2. No correspondence into the award judging will be entered into.
3. The award winner must be willing to present their research or case at an international meeting and acknowledge the support of ANZSPD (Vic Branch).
4. All participants must be prepared to have their abstract published in Synopses.
5. The award winner must be prepared to have the paper of the presentation published in Synopses.

Rules

1. The order of presenting will be determined by a draw from a hat, the draw conducted by the Branch Secretary.
2. Each presentation is strictly limited to 10 minutes. A bell will be sounded at 8 minutes followed by at 10 minutes.
3. Presentations will be followed by 5 minutes question time, with the judges having first right of question followed by questions from the floor (if time allows).
4. Presentations will be judged on the quality of the abstract, description of the case history and presenting problem, summary of pertinent literature, treatment planning ability, interpretation of result, quality of management, conclusion, presentation style, audio-visual quality and relevance to paediatric dentistry.



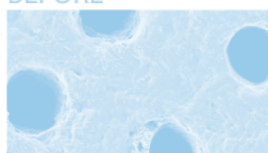
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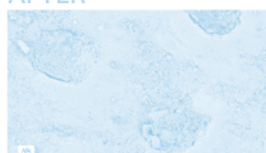
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AFTER¹



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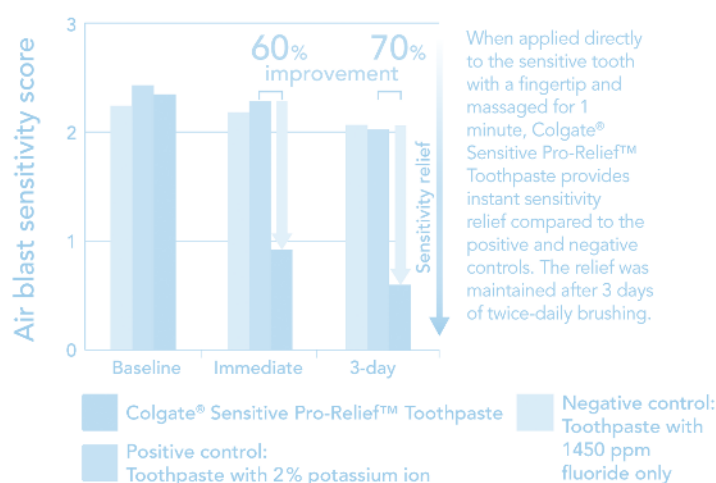
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Scientific works cited: 1. Petrou I et al. J Clin Dent. 2009;20(Spec Iss):23-31. 2. Cummins D et al. J Clin Dent. 2009;20(Spec Iss):1-9. 3. Nathoo S et al. J Clin Dent. 2009;20(Spec Iss):123-130.

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Colgate® Corner

by Sue Cartwright



Change of Scientific Affairs Manager Colgate, South Pacific

It is with great pleasure that I write this introduction as I look forward to meeting with you and working with your association in the future.

I started in the role of Scientific Affairs Manager on 20th September, 2010 and so have had a very short time in the position so far. Previously, I was the Head of the Oral Health Department at AUT University in Auckland, New Zealand. This department runs a Bachelor of Health Science in Oral Health which is equivalent to BOH programmes in Australia.

I am a general dentist with 25 years clinical experience and I have spent nearly eight years in a teaching role (some of those years were concurrent). I have completed a Diploma in Clinical Dentistry in Periodontology and am awaiting the results of my Masters thesis in Education.

I am very excited to be working with Colgate as I am well aware of their community focus and the support they provide to the profession having been the recipient of this policy in my other roles. I hope I can continue the good work that Barbara Shearer and the other previous Scientific Affairs Managers started.

As I am new to Australia as well as to my job I have some major settling – in work ahead of me – exciting times!

Kind regards

Sue Cartwright BDS, Dip Clin Dent (Perio)

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Coming events

13-16 March 2011
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Contact: info@cleft.org.au
Perth, Australia

16-19 March 2011
89th IADR General Session and
Exhibition

San Diego, California

31 March – 2 April 2011
7th EAPD Interim Seminar and
Workshop

Contact: webmaster@eapd.eu
Istanbul, Turkey

30 March 2011

AAPD

Contact: Dr Mala Desai
mala@drmla.com.au
Brisbane, Australia

30 March – 3 April 2011
ADA Congress

Contact: adc2011@ada.org.au
Brisbane, Australia

26-29 May 2011
64th AAPD Annual Session

New York, USA

15-18 June 2011
23rd IAPD International Congress

Athens, Greece

24-28 August 2011
ANZSPD 2011, R.K. Hall Travelling
Lecture Series

Contact: info@themeetingpeople.com.au
Uluru, N.T. Australia

24 May 2012
11th EAPD Congress

Contact: webmaster@eapd.eu
Strasbourg, France

24-27 May 2012
65th Annual Session

San Diego, USA

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Submissions

All text for inclusion in Synopses must be submitted to the editor on CD or by email. Media will not be returned. Address email to timjohnston@westnet.com.au. Please enclose your contact details and email address with all submissions.

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